**NRL BAA Announcement**
**#57-09-08**

# MILLIMETER WAVE SOLID-STATE POWER AMPLIFIER AND POWER COMBINING IMPROVEMENT TECHNOLOGIES

(1) General Statement of Research Need

The Naval Research Laboratory (NRL) seeks white papers and proposals related to increasing the power available at millimeter wave (MMW) frequencies for electronic countermeasure development aimed at providing MMW self-protection capabilities for Navy and Marine Corps aircraft. Development of solid-state power amplifier and power combining technology suitable for use both in an offboard decoy and in an onboard implementation is desired.

Awards under this BAA will be supported by the Countermeasures for Millimeter Wave Guided Missiles FNC. Priority will be given to concepts exhibiting the potential to produce Ka-band or W-band prototypes capable of integration with a decoy for flight-testing in FY-13.

(2) Technical Detail

NRL seeks proposals that further the state-of-the-art in the following areas:

1) Power: Emitted power of 50 - 100 watts CW from a solid-state transmitter suitable for use in a towed decoy is required for the applications under consideration.
2) Power combining: Novel and innovative power combining techniques are encouraged.
3) Bandwidth: Frequency bandwidths of 20 – 50% are desired.

NRL seeks partners to develop the MMW technology to meet the goals stated above.

Address White Papers (WP) to Code 5713, or via e-mail, telephone (202) 767-6191. Allow one month before requesting confirmation of receipt of WP, if confirmation is desired. Substantive contact should not take place prior to evaluation of a WP by NRL. If necessary, NRL will initiate substantive contact.